

## AREA SOURCE OVERVIEW

**Disclaimer:** This information may be outdated. Emissions inventories are refined and changed as new information is received. Please visit <http://www.airquality.utah.gov/Public-Interest/Current-Issues/pm2.5/pm25meetings.html> or call Joel Karmazyn at 801-536-4423 for the most updated information.

**Area Sources** are small sources that do not qualify as point sources under the relevant emissions cutoffs. Area sources encompass widespread sources that may be abundant, but that, individually, release small amounts of a given pollutant. These are sources for which emissions are estimated as a group rather than individually.

The main distinction between point and area sources is the methodology used to estimate emissions. Point sources are inventoried individually, and area sources are inventoried collectively. Estimates of most area sources are calculated using activity data (population, employment, vehicle miles traveled, etc.) multiplied by an emission factor. Emission factors are obtained from EPA documents or derived by using EPA methodology.

Following is an example of how area source emissions are calculated.

### *Graphic Arts*

The graphic arts emissions are calculated using the amount of solvents sold for printing inks and multiplying by the number of employees in the following categories.

#### CATEGORY

- Printing
- Corrugated and Solid Fiber Box Manufacturing
- Folding Paperboard Box Manufacturing
- Setup Paperboard Box Manufacturing
- Fiber Can, Tube, Drum, and Similar Products Manufacturing
- Nonfolding Sanitary Food Container Manufacturing
- Coated and Laminated Packaging Paper Manufacturing
- Coated and Laminated Paper Manufacturing
- Coated Paper Bag and Pouch Manufacturing
- Uncoated Paper and Multiwall Bag Manufacturing
- Laminated Aluminum Foil Manufacturing for Flexible Packaging
- Surface Coated Paperboard Manufacturing
- Die-Cut paper and Paperboard Office Supplies Manufacturing
- Envelope Manufacturing
- Stationary, Tablet, and Related Product Manufacturing
- Sanitary Paper Product Manufacturing
- All Other Converted Paper Product Manufacturing

The emission factor (1,482 lbs/employee) is calculated by taking the amount of solvent in printing inks sold nationally (1,325 million pounds in 2007) and dividing it by the total number of employees in the graphic arts industry (894,170 in the US).

The number of Utah employees in each county in the graphic arts industry is derived by the EPA from Census Bureau data.

In certain cases, facilities only reported the number of employees in a range to obtain confidentiality. The midpoint of the range was used to estimate the number of employees in these cases.